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## SPECIFICATION

### Software Creation Device and Software Creation Method

#### Technology field

This invention relates to software creation devices and software creation methods applied to business software, games software and all other fields' software.

#### Background technology

Traditional software has been created through the steps of requirement definition, basic design, detail design, programming, compile, program test and general test. A series of these steps are implemented by SE's personal abilities including experience, knowledge, applying abilities, etc.

Accordingly, an imagination of automatic creation of software itself is a reckless attempt in reality, and the purpose can be said to be unpredictable in the field. Nevertheless, this invention has a purpose to provide software creation device and software creation method that allows automatic creation of software by means of mechanical algorithm only, without necessitating personal abilities including SE's personal abilities including experience, knowledge, applying abilities, etc.

The background of this invention which realizes the aforementioned can be found in the universal structural proposition of software, that is, the premise of the LYEE

proposition which enables the determination of software as the one and only against the requirement event. As a result, it can provide software creation device and software creation method in order to realize the productivity improvement, the quality uniformity and the easy maintenance.

This invention has been achieved to attain the above purpose.

#### Disclosure of the invention

With this invention, it presents a device to create software creation device, comprising:

(a) Means for, created against all words existing on the display screen, file or voucher (screen, file and voucher: called 'definitive' hereinafter) which are necessitated as data media that are used for software to be produced, W04 Duplication element and W04 Autopoiesis vector, attached with a definitive identifier and a word identifier to identify definitives and words respectively, for performing screen editing, W02 Autopoiesis vector for determining the process route, W03 Duplication element and W03 Autopoiesis vector for performing data editing for file update, all of which definitive identifier and word identifier corresponding respectively to the definitive and the word, wherein;

(a-1) The W04 Duplication element, if the data area of W03 identified by the same word's identifier is not "empty", sets a data value of W03 data area identified by the same word identifier into the data area identified by the word

identifier of the W04,

(a-2) The W04 Autopoiesis vector, if the data area of W04 identified by the word identifier is not "empty" and when a refusal flag of W02 or W03 identified by the same word identifier has been set, sets a refusal code and resets a refusal flag, and if the data area of W04 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W04 identified by an identifier of the other words rather than the word and sets the setting value into the data area of W04 identified by the word identifier, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when restart is not possible sets a refusal code identified by the same word identifier,

(a-3) The W02 Autopoiesis vector, if the data area of W02 identified by the word identifier is not "empty", sets a process route flag, and when a process route flag setting is refused and a restart is possible, sets a restart flag, or when a restart is impossible, sets a refusal flag identified by the same word identifier,

(a-4) The W03 Duplication element, if the data area of W02 identified by the same word identifier is not "empty", sets a data value of W02 data area identified by the aforementioned same word identifier into the data area identified by the word identifier of the W03,

(a-5) The W03 Autopoiesis vector, if the data area of W03 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W03

identified by an identifier of the other words rather than the word and sets the setting value into the data area of W03 identified by the word, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when the restart is not possible sets a refusal flag identified by the same word identifier,

(b) Means for putting together, per screen, each W04 Duplication element and W04 Autopoiesis vector identified by words existing on the proper screen into an executable order of the Duplication element group and the Autopoiesis vector group; putting together, per screen, W04 palettes assembled in each W04 data area identified by each word identifier and each W02 Autopoiesis vector identified by an identifier of words existing on the screen into an executable form; putting together W02 palettes assembled in the data area of each W02 identified by each identifier and each W03 Duplication element and W03 Autopoiesis vector identified by an identifier of words existing on the whole definitive inside the system into an executable order of the Duplication element and the Autopoiesis vector group; and together with the palette group possessing W03 palette having assembled each W03 data area identified by each word identifier,

(c) Means for executing each Duplication element and Autopoiesis vector inside each palette, and re-executing each Duplication element and Autopoiesis vector inside the palette if a palette restart flag in the palette has been

set;

(d) Means for executing the aforementioned W04 palette; sending a screen data based on the execution onto a computer screen; sending a screen data based on the execution onto a computer screen; receiving a screen data responding to the corresponding sent screen and executing the aforementioned W02 palette; determining a process route based on the aforementioned process route flag of the W02 palette; and executing the aforementioned W03 palette accorded in the determined process route,

wherein the device comprises:

Means for memorizing in advance, the undefined W04 Duplication element, the W04 Autopoiesis vector, the W02 Autopoiesis vector, the W03 Duplication element, W03 Autopoiesis vector, and the palette group of the (b) and the means of (c), all of which can contain the undefined definitive identifier, the undefined word identifier, the undefined process route and the undefined introducing data for setting values;

Means for inputting, per the word, the definitive identifier, the word identifier, the process route, and the introducing data;

Means for allocating, per the word, the input definitive identifier, word identifier, process route, and introducing data into the prescribed locations of the memorized undefined W04 Duplication element, W04 Autopoiesis vector, W02 Autopoiesis vector, W03 Duplication element, W03 Autopoiesis vector and the palette group of (b) and the

means of (c).

Also this invention provides a software creation method, the software comprising:

(a) Means for, created against all words existing on the display screen, file or voucher (screen, file and voucher: called 'definitive' hereinafter) which are necessitated as data media that are used for software to be produced, W04 Duplication element and W04 Autopoiesis vector for performing screen editing, W02 Autopoiesis vector for determining the process route, W03 Duplication element and W03 Autopoiesis vector performing data editing for file update, all of which definitive identifier and word identifier corresponding respectively to the definitive and the word are attached to, wherein;

(a-1) The W04 Duplication element, if the data area of W03 identified by the same word's identifier is not "empty", sets a data value of W03 data area identified by the same word identifier into the data area identified by the word identifier of the W04,

(a-2) The W04 Autopoiesis vector, if the data area of W04 identified by the word identifier is not "empty" and when a refusal flag of W02 or W03 identified by the same word identifier has been set, sets a refusal code and resets a refusal flag, and if the data area of W04 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W04 identified by an identifier of the other words rather than the word and sets the setting value into the data area of W04 identified by

the word identifier, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when restart is not possible sets a refusal code identified by the same word identifier,

(a-3) The W02 Autopoiesis vector, if the data area of W02 identified by the word identifier is not "empty", sets a process route flag, and when a process route flag setting is refused and a restart is possible, sets a restart flag, or when a restart is impossible, sets a refusal flag identified by the same word identifier,

(a-4) The W03 Duplication element, if the data area of W02 identified by the same word identifier is not "empty", sets a data value of W02 data area identified by the aforementioned same word identifier into the data area identified by the word identifier of the W03,

(a-5) The W03 Autopoiesis vector, if the data area of W03 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W03 identified by an identifier of the other words rather than the word and sets the setting value into the data area of W03 identified by the word, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when the restart is not possible sets a refusal flag identified by the same word identifier,

(b) Means for putting together, per screen, each W04 Duplication element and W04 Autopoiesis vector identified by words existing on the proper screen into an executable order



of the Duplication element group and the Autopoiesis vector group; putting together, per screen, W04 palettes assembled in each W04 data area identified by each word identifier and each W02 Autopoiesis vector identified by an identifier of words existing on the screen into an executable form; putting together W02 palettes assembled in the data area of each W02 identified by each identifier and each W03 Duplication element and W03 Autopoiesis vector identified by an identifier of words existing on the whole definitive inside the system into an executable order of the Duplication element and the Autopoiesis vector group; and together with the palette group possessing W03 palette having assembled each W03 data area identified by each word identifier,

(c) Means for executing each Duplication element and Autopoiesis vector inside each palette, and re-executing each Duplication element and Autopoiesis vector inside the palette if a palette restart flag in the said palette has been set;

(d) Means for executing the aforementioned W04 palette; sending a screen data based on the execution onto a computer screen; sending a screen data based on the execution onto a computer screen; receiving a screen data responding to the corresponding sent screen and executing the aforementioned W02 palette; determining a process route based on the aforementioned process route flag of the W02 palette; and executing the aforementioned W03 palette accorded in the determined process route,

wherein the method comprises:

Memorizing, in advance, the undefined W04 Duplication element, the W04 Autopoiesis vector, the W02 Autopoiesis vector, the W03 Duplication element, W03 Autopoiesis vector, and the palette group of the (b) and the means of (c), all of which can contain the undefined definitive identifier, the undefined word identifier, the undefined process route and the undefined introducing data for setting values;

Inputting, per the word, the definitive identifier, the word identifier, the process route, and the introducing data;

Allocating, per the word, the input definitive identifier, word identifier, process route, and introducing data into the prescribed locations of the memorized undefined W04 Duplication element, W04 Autopoiesis vector, W02 Autopoiesis vector, W03 Duplication element, W03 Autopoiesis vector and the palette group of (b) and the means of (c).

For this invention, a novel software production method has been already advocated (One is International Publication Number WO97/16784. The other is International Patent Application Number PCT/JP97/01492). This is what is called LYEE (Governmental Methodology for Software Providence).

The theorem of LYEE is as follows: "We can establish the one and only logical function that can synchronize the software requirement into a computer space. By designating the logical function as  $T_0$ , the computer space can be expressed as  $T_0^n$  ( $n \geq 1$ ).  $T_0$  is called Scenario Function."

per every word. The data area of W04 Palette is called W04 data area, the data area of W02 Palette is called W02 data area, and the data area of W03 Palette is called W03 data area.

In W04 Tense Control vector, there are Duplication element and Autopoiesis vector. These are called W04 Duplication element and W04 Autopoiesis vector, respectively. In W02 Tense Control vector, there is Autopoiesis vector. This is called W02 Autopoiesis vector. In W03 Tense Control vector, there are Duplication element and Autopoiesis vector. These are called W03 Duplication element and W03 Autopoiesis vector, respectively.

W04 Duplication element and W04 Autopoiesis vector are program elements to implement display screen editing. W02 Autopoiesis vector is a program element to determine the process route. W03 Duplication element and W03 Autopoiesis vector are program elements to implement data editing for file update.

These Tense Control vectors 103 are created against all words existing on the Screen 105 (including display, files or vouchers) which is necessary to intervene data used by the software to be produced. Speaking of the example of Fig. 1, if words, for example, such as 'password number', 'client name', 'balance of deposit', 'message', 'execute' and 'end' exist on the Screen 105, Tense Control vectors against these respective words are created. Further to add, among Tense Control vectors, W04 Duplication element, W04 Autopoiesis vector and W2 Autopoiesis vector are what to implement

position of a program of Duplication element, Autopoiesis vector and Palette Function which were memorized into the first memory part 802, and 805 includes the 'data Self-Decision' part, the 'process route' part and the assembly part to build in a program of Duplication element, Autopoiesis vector and Palette Function, with 'D, i' defined, into the Pallet Chain Function, and 806 includes an output part to output software which software has been assembled into.

Next, by using Fig. 9, the explanation is made on the procedure to create software by using the scheme structured in this way.

First, specify screens and vouchers used by an aimed software (Step 901) and set identifiers (definitive identifiers) to respective screens (Step 902). Fig. 10 is an example of screens determined. In Fig. 10's screen, set unique identifiers optional within the range of the system, for example, an definitive identifier 'GSOI08'. Also, a blank column in Fig. 10 indicates a data field.

Next, create a process route and determine a File (Step 903). The process route diagram (or called Homogeneity Map) is created based on screens and vouchers which were determined. The process route diagram can be created either humanly or mechanically. The process route diagram is what connects palettes (indicated in boxes) corresponding to respective screens and vouchers, by using lines. Lines mean Pallet Chain Function. If screens and vouchers have been determined, the between-palette connections can be

determined inevitably. Fig. 11 shows an example of process route diagrams.

In the process route diagram, when, for example, a certain screen, (Menu Screen GSMENU, as an example) has been determined, the next necessary process contents can be inevitably determined from the screen's process contents ("Menu NO=n+ENTER", and the screen's control word of "END"), (including the following processes, for example, a display of "Balance Inquiry Screen GSOI08" from "Menu Screen GSMENU", and, from "Balance Inquiry Screen GSOI08", a readout of data (balance data) from File FSHINFIL by executing the control word "EXECUTE" and a return to the original screen against a password number error or a return to the Menu Screen GSMENU by executing a control word "END", therefore lines have been connected between palettes in accordance with the above mentioned process contents.

In Fig. 11, the "W04" under the "GSMENU" is a W04 palette with a screen identifier GSMENU attached to, and by this W04 palette a menu screen GSMENU is formed.

The "W02" under the "GSMENU" is a W02 palette with a screen identifier GSMENU attached to, and by this W02 palette a process route is determined.

The "W04" under the "GSOI08" is a W04 palette with a screen identifier GSOI08 attached to, and by this W04 palette data is formed to display in the data field of the balance inquiry screen GSOI08.

The "W02" under the "GSOI08" is a W02 palette with a screen identifier GSOI08 attached to, and by this W04

palette a process route is determined.

The "W03" is one piece of W03 in the system, and by this W03 palette, a deposit balance is calculated. The calculated deposit balance is displayed in the balance inquiry screen GS0108 after the execution of Duplication element and Autopoiesis vector of W04 palette.

Based on a created process route diagram, a necessary File is determined. That is, the necessary File can be inevitably determined by the process route diagram (for example, in Fig. 11, "FSHINFIL". The "FSHINFIL" means a definitive identifier of the "Client Ledger File", and "FMOTOFIL" means a definitive identifier of the "Deposit Ledger File"). Files determined are specified in the process route diagram.

Further to add, the "IO-W04-RK1-SEC" is a subroutine identifier on the W04 palette which leads data from the "Client Ledger File". The "IO-W04-RD1-SEC" is a subroutine identifier on the W04 palette which leads data from the "Deposit Ledger File". The "IO-W02-RK1-SEC" is a subroutine identifier on the W02 palette which leads data from the "Client Ledger File". The "IO-W03-RK1-SEC" is a subroutine identifier on the W03 palette which leads data from the "Client Ledger File". The "IO-W03 RD1-SEC" is a subroutine identifier on the W03 palette which leads data from the "Deposit Ledger File". The above mentioned applies to Fig. 1 in the same way.

Next, collect words from screens, vouchers and files, which were specified (Step 904) and assign identifiers to

principle, so nothing is defined. When data is an output attribute, the only following is defined: for example, data is Self-Decision from the data of the same word in File, or data is Self-Decision by the operation of data from the other word. More concretely, an example of the "Self-Decision from the data of the same word in File" is such as "Client Name" and "Deposit Balance".

Also, an example of the "Self-Decision by the operation of data from the other word" is "Deposit Balance" (= File's deposit balance + Screen's business amount).

With the input item of process route, set the above-mentioned process route ( $R = 1 - 5$ ).

The "Inducing Data" meant by this invention corresponds to data induced by the above-mentioned word definition (data Self-Decision).

Also, the "process route" meant by this invention corresponds to the above-mentioned process route (R-NO), function key number (F-KEY) and the next screen identifier.

Then, execute the Self-Decision of software by the allocating parts of 804 and 805 (Step 907).

The movement of this Self-Decision is explained based on the flow chart of Fig. 13.

That is, when screen identifiers, word identifiers, etc., i.e., the 'data Self-Decision' part meant by this invention, the 'process route' part and 'D, i' are entered (Step 1301) and when the Self-Decision is executed (Step 1302), the 'data Self-Decision' part, the 'process route' and the 'D, i' read in undefined Duplication element,

F##### is a definitive identifier becoming a key for File access,

G##### is a definitive identifier of the screen where words becoming a key for File access,

RD# is an identifier inherent to the subroutine corresponded to File to access,

\*\*\*\* is a word identifier becoming a key for File access,

###-### and \*\*\*-\*\*\* represent word identifiers of independent variables to an operation.

And, the following columns of the definition table shown in Fig. 12 make their correspondences as below:

Word designation column to @%8@

Screen identifier column to @16@

Word identifier column to @%19@

Attribute column to @%20@

and, Word definition column corresponds to:

\*--< Self-Decision>--

\*--< Set W02, when input attribute>--

\*            MOVE        @%16@-@%19@            OF        W02

\*            TO        @%16@-@%19@            OF        W03.

\*--< When output attribute, Self-Decision therefrom if same word in File>--

\*            MOVE        G##### OF        W03

\*            TO        F##### OF        F#####-REC.

\*            PERFORM    IO-W03-RD\*-SEC.

\*            IF    RD\*-INVS    =    "IV"

\*            MOVE        @%20@ TO        @%16@-@%19@        OF        W03

\*            ELSE



\*--< Acceptance judgment>--

IF GSOI08-PASSNO1 OF W03 = LOW-VALUE

\* OR GSOI08-PASSNO1 OF W03 > 0

ADD 1 TO GSOI08-PASSNO1-CNT

IF GSOI08-PASSNO1-CNT < RECALL-MAX

MOVE "1" TO RECALL-FLG

ELSE

MOVE "1" TO GSOI08-PASSNO1-NON

END-IF

END-IF.

L-W03-GSOI08-PASSNO1-EXIT.

EXIT.

\*-----

\* Client Name

\*-----

L-W03-GSOI08-CLNAME-SEC SECTION.

L-W03-GSOI08-CLNAME-START.

\*--< significance judgment>--

IF GSOI08-CLNAME-XX OF W03 NOT = ALL "9"

GO TO L-W03-GSOI08-CLNAME-EXIT

END-IF.

\*--< Self-Decision>--

\*--<When output attribute, Self-Decision therefrom if same  
word in File>--

\* MOVE GSOI08- PASSNO1 OF W03

\* TO FMOTOFIL- PASSNO1 OF FMOTOFIL-REC.

\* PERFORM IO-W03-RD1-SEC.

\* IF RD1-INVS = "IV"

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*          MOVE  ALL "9"      TO  GSOI08-CLNAME-XX  OF  W03
*
*      ELSE
*
*          MOVE  FMOTOFIL-CLNAME  OF  FMOTOFIL-REC
*
*              TO  GSOI08-CLNAME  OF  W03
*
*          END-IF.
*--<Acceptance judgment>--
*
*      IF  GSOI08-CLNAME-XX      OF  W03  =  ALL "9"
*
*          OR  GSOI08-CLNAME-XX      OF  W03  >  0
*
*              ADD  1      TO  GSOI08-CLNAME-CNT
*
*              IF      GSOI08-CLNAME-CNT      <  RECALL-MAX
*
*                  MOVE  "1"      TO  RECALL-FLG
*
*              ELSE
*
*                  MOVE  "1"      TO  GSOI08-CLNAME-NON
*
*              END-IF
*
*          END-IF.
*
*      L-W03-GSOI08-CLNAME-EXIT.
*
*          EXIT.
*
*-----
*      *  Deposit Balance
*-----
*
*      L-W03-GSOI08-YOKNZAN-SEC  SECTION.
*
*      L-W03-GSOI08-YOKNZAN-START.
*
*--< significance judgment>--
*
*      IF  GSOI08-YOKNZAN  OF  W03  NOT =  LOW-VALUE
*
*          GO  TO  L-W03-GSOI08-YOKNZAN-EXIT
*
*      END-IF.
*
*--< Self-Decision>--

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the Pallet Chain Function by the assembly part 805 and are output from the output part 806.

As explained above, in this invention, any of Palette Function, Duplication element, and Autopoiesis vector can realize its logic only by the address of the data area identified by the word identifier, therefore, the automation of the creation of software of all fields such as business software, games software and other software is possible, and, moreover, software created can achieve the enhancement of the productivity, the uniformity of the quality, and the ease of the maintenance.

#### Industrial Applicability

As mentioned above, the software creation device and the software creation method of this invention has realized logic only by means of the address of the data area which is identified by the word identifier, as for Palette Function, Duplication element and Autopoiesis vector, respectively, while having realized the automation of the software creation at ease, therefore it is useful to create software for all fields, including business software, games software and others, and at the same time, it is also useful in the maintenance of software. It is suited to the creation and maintenance of software requiring the productivity, quality uniformity, maintainability, in particular.

## CLAIMS

1. A software creation device, said software comprising:

(a) Means for, created against all words existing on the display screen, file or voucher (screen, file and voucher: called 'definitive' hereinafter) which are necessitated as data media that are used for software to be produced, W04 Duplication element and W04 Autopoiesis vector for performing screen editing, W02 Autopoiesis vector for determining the process route, W03 Duplication element and W03 Autopoiesis vector for performing data editing for file update, all of which definitive identifier and word identifier corresponding respectively to the definitive and the word are attached to, wherein;

(a-1) The W04 Duplication element, if the data area of W03 identified by the same word's identifier is not "empty", sets a data value of W03 data area identified by the same word identifier into the data area identified by the word identifier of the W04,

(a-2) The W04 Autopoiesis vector, if the data area of W04 identified by the word identifier is not "empty" and when a refusal flag of W02 or W03 identified by the same word identifier has been set, sets a refusal code and resets a refusal flag, and if the data area of W04 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W04 identified by an identifier of the other words rather than the word and sets

the setting value into the data area of W04 identified by the word identifier, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when restart is not possible sets a refusal code identified by the same word identifier,

(a-3) The W02 Autopoiesis vector, if the data area of W02 identified by the word identifier is not "empty", sets a process route flag, and when a process route flag setting is refused and a restart is possible, sets a restart flag, or when a restart is impossible, sets a refusal flag identified by the same word identifier,

(a-4) The W03 Duplication element, if the data area of W02 identified by the same word identifier is not "empty", sets a data value of W02 data area identified by the aforementioned same word identifier into the data area identified by the word identifier of the W03,

(a-5) The W03 Autopoiesis vector, if the data area of W03 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W03 identified by an identifier of the other words rather than the word and sets the setting value into the data area of W03 identified by the word, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when the restart is not possible sets a refusal flag identified by the same word identifier,

(b) Means for putting together, per screen, each W04 Duplication element and W04 Autopoiesis vector identified by

words existing on the proper screen into an executable order of the Duplication element group and the Autopoiesis vector group; putting together, per screen, W04 palettes assembled in each W04 data area identified by each word identifier and each W02 Autopoiesis vector identified by an identifier of words existing on the screen into an executable form; putting together W02 palettes assembled in the data area of each W02 identified by each identifier and each W03 Duplication element and W03 Autopoiesis vector identified by an identifier of words existing on the whole definitive inside the system into an executable order of the Duplication element and the Autopoiesis vector group; and together with the palette group possessing W03 palette having assembled each W03 data area identified by each word identifier,

(c) Means for executing each Duplication element and Autopoiesis vector inside each palette, and re-executing each Duplication element and Autopoiesis vector inside the palette if a palette restart flag in the palette has been set;

(d) Means for executing the aforementioned W04 palette; sending a screen data based on the execution onto a computer screen; sending a screen data based on the execution onto a computer screen; receiving a screen data responding to the corresponding sent screen and executing the aforementioned W02 palette; determining a process route based on the aforementioned process route flag of the W02 palette; and executing the aforementioned W03 palette accorded in the

determined process route,

wherein the device comprises:

Means for memorizing in advance, the undefined W04 Duplication element, the W04 Autopoiesis vector, the W02 Autopoiesis vector, the W03 Duplication element, W03 Autopoiesis vector, and the palette group of the (b) and the means of (c), all of which can contain the undefined definitive identifier, the undefined word identifier, the undefined process route and the undefined introducing data for setting values;

Means for inputting, per the word, the definitive identifier, the word identifier, the process route, and the introducing data;

Means for allocating, per the word, the input definitive identifier, word identifier, process route, and introducing data into the prescribed locations of the memorized undefined W04 Duplication element, W04 Autopoiesis vector, W02 Autopoiesis vector, W03 Duplication element, W03 Autopoiesis vector and the palette group of (b) and the means of (c).

2. A software creation method, said software comprising:

(a) Means for, created against all words existing on the display screen, file or voucher (screen, file and voucher: called 'definitive' hereinafter) which are necessitated as data media that are used for software to be produced, W04 Duplication element and W04 Autopoiesis vector for performing screen editing, W02 Autopoiesis vector for

determining the process route, W03 Duplication element and W03 Autopoiesis vector performing data editing for file update, all of which definitive identifier and word identifier corresponding respectively to the definitive and the word are attached to, wherein;

(a-1) The W04 Duplication element, if the data area of W03 identified by the same word's identifier is not "empty", sets a data value of W03 data area identified by the same word identifier into the data area identified by the word identifier of the W04,

(a-2) The W04 Autopoiesis vector, if the data area of W04 identified by the word identifier is not "empty" and when a refusal flag of W02 or W03 identified by the same word identifier has been set, sets a refusal code and resets a refusal flag, and if the data area of W04 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W04 identified by an identifier of the other words rather than the word and sets the setting value into the data area of W04 identified by the word identifier, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when restart is not possible sets a refusal code identified by the same word identifier,

(a-3) The W02 Autopoiesis vector, if the data area of W02 identified by the word identifier is not "empty", sets a process route flag, and when a process route flag setting is refused and a restart is possible, sets a restart flag, or when a restart is impossible, sets a refusal flag identified



by the same word identifier,

(a-4) The W03 Duplication element, if the data area of W02 identified by the same word identifier is not "empty", sets a data value of W02 data area identified by the aforementioned same word identifier into the data area identified by the word identifier of the W03,

(a-5) The W03 Autopoiesis vector, if the data area of W03 identified by the word identifier is "empty", introduces a setting value of the word from the data area of W03 identified by an identifier of the other words rather than the word and sets the setting value into the data area of W03 identified by the word, and when the restart is possible even if the aforementioned setting value cannot be introduced sets a restart flag or when the restart is not possible sets a refusal flag identified by the same word identifier,

(b) Means for putting together, per screen, each W04 Duplication element and W04 Autopoiesis vector identified by words existing on the proper screen into an executable order of the Duplication element group and the Autopoiesis vector group; putting together, per screen, W04 palettes assembled in each W04 data area identified by each word identifier and each W02 Autopoiesis vector identified by an identifier of words existing on the screen into an executable form; putting together W02 palettes assembled in the data area of each W02 identified by each identifier and each W03 Duplication element and W03 Autopoiesis vector identified by an identifier of words existing on the whole definitive

inside the system into an executable order of the Duplication element and the Autopoiesis vector group; and together with the palette group possessing W03 palette having assembled each W03 data area identified by each word identifier,

(c) Means for executing each Duplication element and Autopoiesis vector inside each palette, and re-executing each Duplication element and Autopoiesis vector inside the palette if a palette restart flag in the said palette has been set;

(d) Means for executing the aforementioned W04 palette; sending a screen data based on the execution onto a computer screen; sending a screen data based on the execution onto a computer screen; receiving a screen data responding to the corresponding sent screen and executing the aforementioned W02 palette; determining a process route based on the aforementioned process route flag of the W02 palette; and executing the aforementioned W03 palette accorded in the determined process route,

wherein the method comprises:

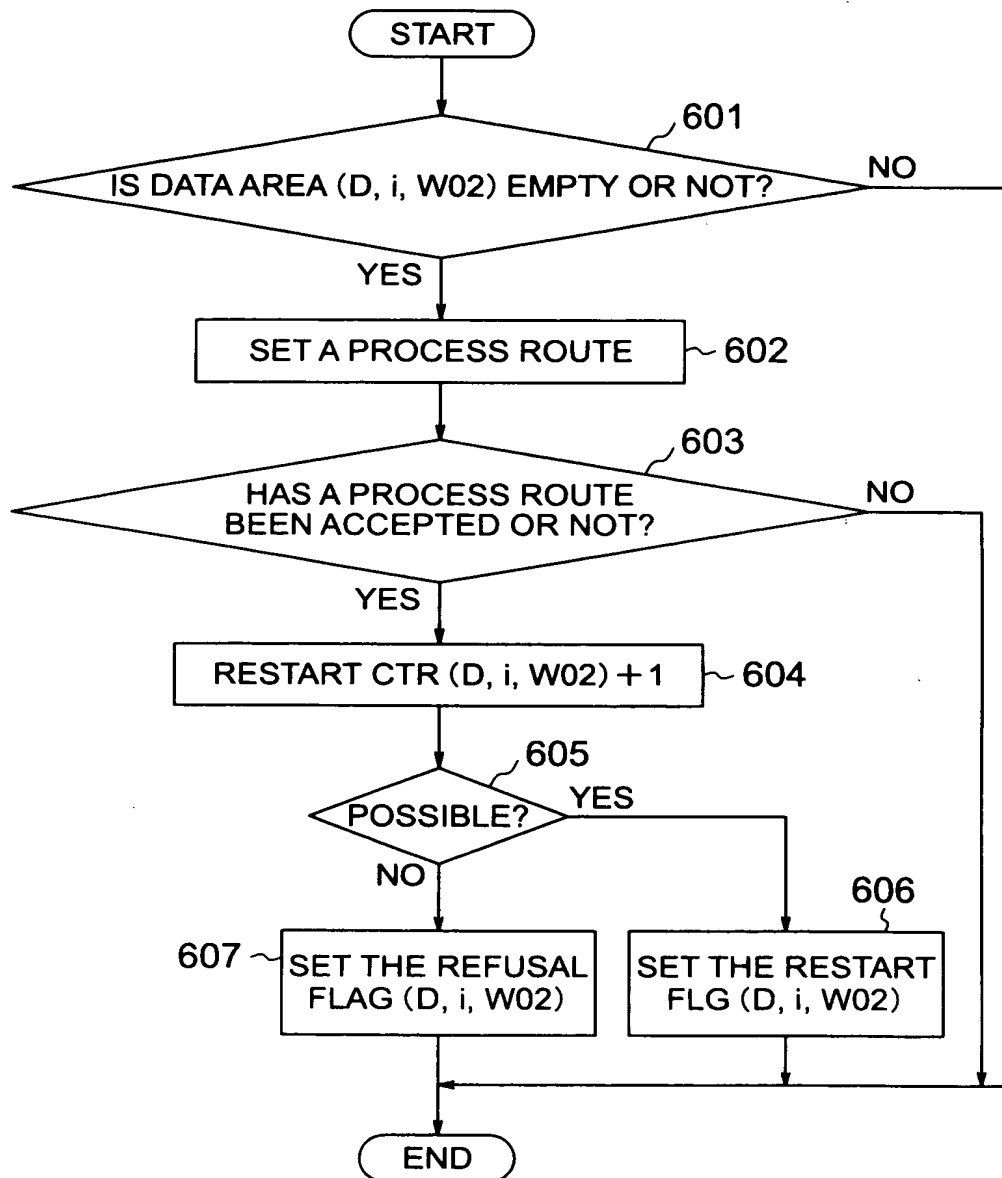
Memorizing, in advance, the undefined W04 Duplication element, the W04 Autopoiesis vector, the W02 Autopoiesis vector, the W03 Duplication element, W03 Autopoiesis vector, and the palette group of the (b) and the means of (c), all of which can contain the undefined definitive identifier, the undefined word identifier, the undefined process route and the undefined introducing data for setting values;

Inputting, per the word, the definitive identifier, the

word identifier, the process route, and the introducing data;

Allocating, per the word, the input definitive identifier, word identifier, process route, and introducing data into the prescribed locations of the memorized undefined W04 Duplication element, W04 Autopoiesis vector, W02 Autopoiesis vector, W03 Duplication element, W03 Autopoiesis vector and the palette group of (b) and the means of (c).

FIG. 6



# FIG. 12

SCREEN ID	GSOI08	NAME OF WORD	NAME OF SCREEN	BALANCE INQUIRY	NUMBER OF COLUMNS	ATTRIBUTE	FILE TO USE	R-NO	PF-KEY	NEXT SCREEN IDENTIFIER	WORD DEFINITION
NUMBER OF ITEM			WORD IDENTIFIER	I/O							
1	PASSWORD NUMBER	PASSNO1		I	4	9	8				
2	CLIENT NEME	CLNAME 0		O	25	X	8				
3	BALANCE OF DEPOSIT	YOKNZAN		O	9	9	7				
4	MESSAGE	MSSGCD1		O	50	X		3	PF3KEY	GSMENU	
5	END	PF3KEY			1	9		2	PF25KEY	GSOI08	
6	EXECUTE	PF25KEY			1	9		RD1			
7	DEPOSIT LEDGER (FMOTOFIL)	FMOTO-REC						RK1			
8	CLIENT LEDGER (FSHINFIL)	FSHIN-REC									
9											
10											